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ABSTRACT

The study indentified all K-12 and 1-12 public school districts in the United States enrolling less than 300 students (n=1,414) and those enrolling 301-900 students (n=2,711), collected and analyzed data related to superintendents, school districts, teachers, students, and school programs, and gathered data that might be useful to colleges of teacher education. A response and return rate of 79% (642, 132-item questionnaires returned), of which 244 of the rural schools had less than 300 students and 398 had in excess of 300. Sections include discussion and statistics on district enrollments, district leadership, transportation, special school funding, primary occupations of people living in the district, district staff, teacher salaries, new teachers, secondary preparation, teacher recruitment, district problems, student performance, student awards, educational programs, extra-curricular sports offered, and selected course offerings. Concluding the report is a list of 18 findings that would be of interest to teacher educators in the preparation of teachers for rural America, i.e., teacher preparation programs should provide field experiences in rural schools, the mean beginning salary for teachers was $12,375 and overall average salary was $16,139, during the past year 81.9% hired no new teachers due to an increase in students, and teachers averaged three subject preparations. (AH)

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A STUDY OF RURAL SCHOOL DISTRICTS IN THE UNITED STATES AND IMPLICATIONS FOR TEACHER EDUCATION

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PREFACE

Brigham Young University has an established history of support for rural education. This support heavily concentrated in the preparation of teachers also extends to graduate study, and state and national rural association membership.

Currently, the College of Education is involved in a nationwide study of rural school districts enrolling less than 900 students. This paper, specifically directed to the problem of rural teacher recruitment is but a part of the total study. In the near future a comprehensive publication on rural schools in the United States will be forthcoming.

Permission to use the contents of this material in any publication should be directed to the authors of the study.

A STUDY OF RURAL SCHOOL DISTRICTS IN THE UNITED STATES AND IMPLICATIONS FOR TEACHER EDUCATION

Ralph B. Smith, Bruce O. Barker and Ivan D.Muse

Statement of the Problem

Until recently, comparatively few educators have taken interest in the needs and problems of America's rural schools, despite the fact that almost one-third of America's youngsters attend schools classified as rural. With the decline in school consolidation and the current population shift to nonmetropolitan areas, it is clearly evident that rural schools will continue to play a significant role in the future educational development of a large segment of our society. Currently, very little data are available about rural school systems in our society. This is particularly true of K-12 and 1-12 systems enrolling less than 1,000 students. Of particular note is the fact that these districts, totaling 4,125 in number, represent one-fourth of all the school districts currently in operation. Data is lacking regarding the problems of teacher preparation, recruitment and inservice training in school districts of under 900 students.

Statement of Purpose

The purpose of this study was to (1) identify all of the K-12 and 1-12 public school districts in the United States enrolling less than 300 students and those enrolling 301-900 students; and (2) to collect and analyze data from these two groups related to the school superintendent, the school district, the teachers, the students, and to school programs.

A secondary purpose was to gather data that might be useful to colleges of teacher education in their preparation of teachers for service in rural schools.

Methods and Procedure

Sampling

The sample used for this study consisted of school superintendents in 816, randomly selected, operating K-12 and 1-12 public school districts in the United States with an enrollment of less than 900 students each. Two samples were selected, a proportional stratified random sample of 308 K-12 and 1-12 districts enrolling 300 students or less and a simple random sample of 508 K-12 and 1-12 districts enrolling 301-900 students.

Instrument

A one hundred twenty-three item, self administered questionnaire was designed by the researchers for use in collecting the data presented in this study. The questionnaire was critiqued by selected faculty and administrative staff at Brigham Young University and was field tested in December 1982 by three rural Utah districts, not included in the sample, and 19 districts outside the state of Utah. A cover letter from the Director of Rural Education at Brigham Young University, explaining the purposes of the study, was mailed with each of the questionnaires sent out in the field test. Responses from the field testing and constructive criticisms from University personnel were evaluated and revisions of the questionnaire were made.

Procedures

The data for the information presented in this paper were collected during the 1982-83 school year and were part of the data for a larger study conducted by the College of Education at Brigham Young University. Much of the information obtained will not be reported in this paper.

The researchers identified all of the K-12 and 1-12 school districts in the United States enrolling less than 900 students by referring to the Education Directory -- Fall 1980: Local Education Agencies, published by the National Center for Education Statistics. A total of 4,125 districts were listed (26% of the 15,601 operating public school districts in the United States). Of these 1,414 enrolled 300 students or less and 2,711 enrolled 301-900 students.

For the 1,414 school districts enrolling 300 students or less, a proportional stratified random sample of 308 districts was selected. The number of districts included from each state in this sample was determined by the percent of the state's K-12 and 1-12 districts which enroll 300 students or less. Each state that had at least one K-12 or 1-12 district of 300 students or less was included in the sample. Fourteen states do not have operating K-12 or 1-12 districts which enroll less than 300 students and these were not included in the sample (Alabama, Massachusetts, Montana, New Jersey, North Carolina, South Carolina, Pennsylvania, and West Virginia). The remainder of the districts selected in each state was based on the percent of qualifying districts represented. Each school district in the study population, within each state, was assigned a different number, and those selected

for the stratified sample were chosen by referring to a table of random numbers. The 308 districts selected in this sample represented 22% of the study population.

For districts enrolling 301-900 students, a simple random sample of 508 districts was selected. The simple random sample was chosen from a total population of 2,711 districts. Each state was represented which had a minimum of at least one qualifying school district, with the exceptions of Hawaii and Montana which have no K-12 or 1-12 districts. For those states which did not have a K-12 or 1-12 district enrolling 301-900 students, their smallest K-12 or 1-12 district was selected. This included the states of Delaware, Florida, Louisiana, Maryland, Rhode Island and West Virginia. The largest district selected from among these states was in Maryland and it enrolled 3,886 students. The next largest was in Delaware with 1,761 students. Other than the smallest district from these six states and states which had only one qualifying district, each school district in the study population was assigned a different number and those selected for the sample were chosen by consulting a table of random numbers. The 508 districts selected in this simple random sample represented 19% of the study population.

After the two samples were selected, mailing addresses of school superintendents for each of the districts were taken from the Directory of Public Schools in the U.S., 1979, published by the Association for School, College, and University Staffing.

On January 3, 1983 the questionnaire, a cover letter signed by the President of the National Rural Education Association, and a pre-paid self-addressed envelope for the return of the questionnaires was mailed to each of the superintendents selected in the two samples. On

January 5, 1983 the Director of Rural Education at Brigham Young University mailed letters to selected members of the National Rural Education Association in 26 states informing them of the researh study underway, listing the districts in their state which were included in the two samples, and asking that they contact as many of the superintendents in their state as possible and encourage them to fill out the questionnaire and promptly return it to Brigham Young University in the pre-paid envelope they received.

Prior to mailing, each questionnaire was coded so that follow-up letters or telephone contact could be made to superintendents not responding in a reasonable length of time. Four hundred forty-nine questionnaires from the two samples had been completed and returned to the researchers by January 25, 1983. On January 27, 1983, 367 follow-up letters signed by the President of the National Rural Education Association, a copy of the questionnaire, and a pre-paid return mailer were mailed to superintendents of districts that had not yet responded. On that date, the researchers also made telephone calls to selected district superintendents that had not yet responded to the questionnaire.

On February 22, 1983 a total of 244 questionnaires from the proportional stratified random sample had been returned (79% of the sample population) and 398 questionnaires from the simple random sample had been returned (78% of the sample population). For the two samples, a combined total of 642 questionnaires were returned, representing 78.7% of the combined sample populations.

On February 11, 1983 all questionnaires were delivered to Computer Service personnel at Brigham Young University for data entry.

Treatment of the Data

The information presented in the study was obtained from data supplied by the questionnaire.

The Statistical Analysis System (SAS) computer program for the social sciences was used by Computer Service personnel at Brigham Young University to list the frequency distributions; and to calculate the mean, standard deviation, range, and standard error of mean for each of the 123 variables taken from the questionnaire. These statistical measures were tabulated for each of the two separate samples and for the combined sample. The SAS computer program was also used for cross tabulations of selected variables and to arrange some of the data according to geographical region.

Preliminary Findings

For the purposes of this paper, results will be presented only for the combined sample of 642 responses (K-12 and 1-12 districts enrolling 900 students or less).

Questionnaire Returns

642 questionnaires from 45 states were returned for a total response and return of 79 percent. The returns included replies from 244 rural school district with a student population under 300, and 398 returns from rural school districts with a student population in excess of 300. The geographical area of school districts ran from two to 6000 square miles.

District Enrollments

Student enrollments per district ran from 35 students to 1976, with the mean enrollment approximately 380 students. When queried as to the future growth of the district, 230 (36.2 percent) indicated that district enrollments would decrease, 291 (45.8 percent) expected the district would remain the same size and 114 (17.9 percent) noted the district would grow larger.

District Leadership

With reference to district leadership, 485 (75.8 percent) were full-time superintendents, 134 (20.9 percent) were superintendent/principal combinations, while 21 (3.3 percent) were classified as "other."

As to the age of the district leaders, 140 (21.9 percent) were in the 45-49 year age group, 126 (19.7 percent) in the 50-54 year age group. Sixty percent of the superintendents were 45 years of age or older. Approximately seven percent were over 60 while only one was under age 29. As to the number of years of service in the present position, the range was one to 31 years, with the mean between five and six years. Quite clearly, the majority had been in service only a few years, while one had been superintendent for 31 years.

Inquiries related to training revealed that 83 (13.1 percent) held the doctorate, 200 (31.5 percent) held the specialist degree, while 348 (54.8 percent) held the master's degree. Only four held the bachelor's degree. Seven superintendents did not respond to the question.

Salaries generally ranged between $30,000 and $35,000 per year, however, six were in the $50,000 category while another six were under $20,000 per year.

As to prior experience, 453 (70.6 percent) came to the rural district from other positions outside the district. 189 (29.4 percent) came from positions within the district.

With reference to hours worked each week, most (35.1 percent) worked between 46 and 50 hours while about 22 percent indicated a work week running between 51 and 55 hours per week. Only one superintendent indicated a work week of more than 60 hours.

Superintendents were asked to rank three "major on-going challenges confronting the school districts." Ranked first by 64 percent was adequate financial support for the district. Ranked second was the matter of improving the curriculum, with securing adequately trained teachers also indicated. Ranked third was the matter of inservice training.

Transportation

Superintendents were asked to note the percent of students enrolled who were bussed to school. The percentages noted ran from one percent to 100 percent. On the average, about 70 percent of the students were bussed to school. As to the greatest one-way distance students were bussed, the range was two miles to 75 miles, with the mean about 17 miles.

Special School Funding

Superintendents were asked about state support for funding to aid small rural districts, 151 (24.2 percent) received such aid, while 474 (75.8 percent) received no such aid. Seventeen districts failed to respond to the question. Related to this question, inquiry was made as

to the number of one room schools in the district. Responses from 612 (96.8 percent) districts noted no one room schools, while in only 19 (3.0 percent) districts were one room schools to be found.

Primary Occupations of School Patrons

Superintendents were asked to rank the occupation of those living in the district. As was expected, agriculture was ranked first, business second, and ranching and employment in a nearly urban center ranked third. Information was sought as to average annual gross income. Most such incomes (59.2 percent) ran between $10,000 and $20,000 per year, while 23 percent were in the $20,000 to $30,000 group. The range of incomes ran from under $10,000 to over $60,000 with only five districts reporting such incomes.

Bonding

Inquiry was made as to the success or failure of the most recent bond election in the rural district. 542 (87.6 percent) districts indicated that the last bond election was approved by the voters, whereas 77 (12.4 percent) districts reported voter opposition. As to the number of years since the last bond election, the range in years ran from "less than one" (only two districts) to "more than nine" years (46.8 percent). The mean number of years was approximately seven years since the last bond election. As to the dollar amount of the most recent bond election, the range was $1,760 to $7,500,00. The mean amount of bonding was near $716,000.

District Staff

As to the number of full-time elementary teachers (K-6 or 1-6) in rural districts, the range was two to 96 teachers, with a mean of approximately 11-12 teachers. With reference to secondary teachers

(7-12) the range was zero (three districts) to 54 teachers. The mean number of secondary school teachers in rural districts was between 13-14 teachers.

Information provided by the superintendents indicated that 295 districts employed no part-time teachers at the elementary level, though the range for those districts which did was one to 34, with the mean less than one. At the secondary level, 319 districts did not employ part-time teachers, but for those which did the range was one to six and again, the mean was less than one.

Inquiry was made as to the number of "specialists" employed by the rural districts. Superintendents provided the following information as to the number of school districts employing "specialists": Special education, 543; media specialist/librarian, 507; counselors, 498; school nurse, 283; school psychologist, 212; subject matter specialist, 138; adult education director, 51; community education director, 49; and vocational education director 15.

Teacher Salaries

The annual beginning salary for new teachers in the rural district ran from $7,700 (one district) to $27,000 (one district in Alaska). The mean beginning salary for teachers was $12,375. The top salary paid teachers in rural districts ran from $10,650 to $50,000 (one district in Alaska) with the mean highest salary approximately $20,500.

The estimated average annual salary for teachers in rural districts was $16,139. The range for such salaries ran from $8,310 to $39,000, again in Alaska.

As to salaries paid to newly hired elementary principals, the range was $7,800 to $52,000. The mean salary being $20,000. For secondary principals, the range was $7,800 to $56,000 with the mean salary paid $23,000.

Information as to the the number of "steps" in the salary schedule revealed that in two districts there were no steps in the salary schedule, while in one district there were 34 steps. The mean number of steps was approximately 14.

New Teachers

Information was sought as to the number of new teachers employed by rural districts because of the growth of the district. It was found that 510 (81.9 percent) districts did not employ new teachers due to growth, while 112 districts increased the number of teachers due to the growth of the districts. As to new teachers hired to replace those teachers who left the district either voluntary or involuntary, 78 districts were not required to replace any teachers. Replacements required ran from zero to 15 teacher replacements, with the mean number between one and two teachers. 140 (22.0 percent) districts replaced two teachers.

As to the reasons cited by superintendents for releasing teachers, the following were cited: declining enrollments were cited by 51 districts as the reason for releasing teachers (498 did not cite this reason); 181 (28.7 percent) districts cited inadequate performance as the reason for hiring replacements (450 did not cite this reason); 326 (43.5 percent) districts cited teachers leaving to accept a new position (302 did not cite this reason); 156 (24.6 percent) districts cited "other" reasons.

Secondary Preparations

For secondary teachers, information was sought as to the average number of different subject preparations. The range for different subject preparations ran from one to more than six! The breakdown was as follows: one preparation - 16 districts; two preparations - 112 districts; three - 171 districts; four - 145 districts; five - 132 districts, and six or more - 37 districts. The average number of separate preparations was just under three.

When asked about the percent of secondary teachers teaching "one or more classes" outside their major field, the range was zero to 100 percent. 309 (49.8 percent) districts reported no teachers teaching outside their major field. The mean percentage was less than one.

Teacher Recruitment

Superintendents were asked to rank the subject matter areas which posed the greatest difficulty from the standpoint of recruitment. Ranked first was mathematics, with 44 percent of the superintendents responding, ranked second in difficulty were the sciences and home economics, while foreign languages ranked third. Recruiting elementary teachers to the rural districts apparently posed few, if any, problems.

District Problems

The superintendents were requested to respond to a list of current problems in the public schools with their responses ranging from "not a problem" to "serious problem." Among the problems cited, school finance was the single "serious problem" most frequently cited by superintendents. With reference to problems involving students, rural superintendents cited "lack of motivation" and "lack of educational goals and direction" as problems more serious than others. Quite clearly,

rural superintendents were not troubled with those matters with which urban superintendents must contend. Rural superintendents are relatively free of such problems.

Student Performance

With reference to national test scores, superintendents reported that students performed satisfactorily. For example, 264 (42.3 percent) reported students performing "above average" or "well above average." 327 (52.6 percent) superintendents noted their students performing "close to average", with only five percent reporting "below average" performance.

As to the number of graduates in 1981-82, rural superintendents reported no graduates up to 160. The mean number of graduates was approximately 30. As to graduates going to college or university, nine districts noted that no students went on to college, while two districts reported that 99 students went to college. The mean number was about 39 students attending college. Fewer numbers attended technical schools, the mean number approximately ten students. The mean number of students reported by superintendents as unemployed and not going to college was less than one. Approximately 24 students were employed full-time, while superintendents could not report on the whereabouts of a few students.

Student Awards

Superintendents reported students who were National Merit Finalists as follows: 400 districts reported no national merit finalists, but there was a range of from one to 20 (one district). Most districts reported one or two finalists.

As to performance on the ACT test, the range of students scoring above 25 ran from zero (143 districts) to 35 students. With reference to the scores on the SAT, the range of students scoring 1100 or higher ran from zero (349 districts) to 35.

Educational Programs

Inquiries were made as to the use of various resources to "enhance learning opportunities for students." Superintendents were asked to indicate the use of various resources from "used extensively" to "not used" or "not available". Vocational and education service centers were most frequently cited by superintendents as "used extensively." Other resources cited included sharing personnel, traveling teachers, computer-assisted instruction, the use of television, and video tapes.

Extra-Curricular Sports Offered

Superintendents reported the following sports sponsored by the rural districts: 436 (69.2 percent) offered football; 630 (100.0 percent) offered basketball; 349 (55.4 percent) offered baseball; 234 (37.1 percent) offered softball; 414 (65.7 percent) offered volleyball; 147 (23.3 percent) offered cross-country track; 44 (7.0 percent) offered soccer; 159 (25.2 percent) offered wrestling; 496 (78.7 percent offered track and field; 141 (22.4 percent) offered golf; 103 (16.3 percent) offered tennis; 20 (3.2 percent) offered swimming; and 37 (5.9 percent) offered gymnastics.

Selected Course Offerings

Information provided by the superintendents indicated that the following languages were offered as follows: Spanish was offered in 254 (41.8 percent) districts; German in 59 (9.7 percent) districts; French in 115 (18.9 percent) districts; and Latin was found in only 20 (3.3 percent) districts.

Calculus was offered in 218 (35.9 percent districts; chemistry in 482 (79.4 percent) districts; computer science in 366 (60.3 percent) districts, physics in 411 (67.7 percent) districts; electronics in 79 (13.0 percent) districts; and vocational agriculture in 383 (63.1 percent) of the districts.

A STUDY OF RURAL SCHOOL DISTRICTS IN THE UNITED STATES AND IMPLICATIONS FOR TEACHER EDUCATION

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SUMMARY

The information gained from the study that would assist teacher educators in the preparation of teachers for rural America appears as follows:

1. Rural school educators are concerned about their schools and realize the need to provide data to those wishing to disseminate information about rural education. A seventy-nine percent response to a lengthy questionnaire is evidence of that concern.

2. Teacher preparation programs that provide field experiences in only large schools may not adequately serve the experience need of a teacher who teaches in a rural school with a mean enrollment of only 380 students.

3. The professors of school administrator preparation programs should be aware that rural Superintendents are relatively young with 14% being less than 45 years of age. The average tenure as a current Superintendent was between five and six years.

4. School superintendents are paid approximately $30,000 to $35,000 per year.

5. Mobility seems to be a factor in rural school superintendencies as 70.6 percent of the administrators came to the rural school from outside the district.

6. The most common work week of a rural school superintendency was 46 to 50 hours (35.1 percent) although 22 percent of the administrators worked between 51 and 55 hours per week.

7. Rural school superintendents indicate that the major challenges facing the school districts are:

   - financial support
   - improving the curriculum
   - securing adequately trained teachers
   - inservice training

8. Teachers planning on teaching in rural schools need to recognize that the primary parent occupation of the school attendance area continues to be agriculture followed by business employment. The income of most families (59.2 percent) falls in the $10,000 to $20,000 per year range.

9. The typical school has 11 to 12 teachers in elementary school and 13 to 14 teachers in the secondary school.

10. The mean beginning salary for teachers was $12,375. The average salary for all teachers was $16,139.

11. During the past year 81.9 percent of the schools hired no new teachers due to an increase in number of students.

12. The average number of teacher replacements in a school is approximately two teachers.

13. The average number of teacher subject preparations was approximately three. It was reported that very few teachers teach out of their major field.

14. Superintendents report that they experience the greatest difficulty in hiring teachers of mathematics followed by the sciences and home economics Hiring teachers with foreign language skills ranked third.

15. Superintendents reported that the lack of motivation and lack of educational goals and direction were problems that the schools faced in working with students.

16. Rural schools offer a number of sports for boys and girls and these activities require a number of faculty to supervise the programs as coaches. Basketball was offered by all school districts surveyed.

17. The teaching of Spanish was offered in 41.8 percent of all the school districts, French was second with offerings in 18.9 percent of school districts. Latin instruction was found in only 3.3 percent of the districts.

18. Chemistry was offered in 79.4 percent of the school districts followed by physics (67.7 percent), vocational agriculture (63.1 percent) and computer sciences (60.3 percent).